

March 4, 2010

VIA ECFS

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 Twelfth Street, SW  
Washington, D.C. 20554

Re: *Ex Parte* Presentation  
GN Docket Nos. 09-51 and 09-157, WT Docket Nos. 07-195 and 04-356

Dear Ms. Dortch:

CTIA – The Wireless Association™ (“CTIA”) writes this letter to respond to the arguments made by M2Z Networks in a recent *ex parte* letter to the Federal Communications Commission (“FCC” or “Commission”).<sup>1</sup> In that letter, M2Z opposes the suggestion of CTIA and others that the Commission work with the National Telecommunications and Information Administration (“NTIA”) to repurpose federal spectrum at 1755-1780 MHz for commercial use to pair that block with the 2155-2180 MHz spectrum band (“AWS-3”). M2Z’s conclusions and arguments are based on misunderstandings of the nature of the proposals put forth by CTIA and others as well the process contemplated therein – all of which, despite M2Z’s claims, has previously appeared in the record.<sup>2</sup>

<sup>1</sup> See Letter from John B. Muleta, M2Z Networks, to Chairman Julius Genachowski, Commissioner Michael J. Copps, Commissioner Robert M. McDowell, Commissioner Mignon Clyburn, and Commissioner Meredith Atwell Baker, GN Docket Nos. 09-51, 09-157, WT Docket Nos. 07-195, 04-356 (filed Feb. 19, 2010) (“M2Z Feb. 19 Letter”).

<sup>2</sup> M2Z claims that a delay is not supported by the record in this proceeding. CTIA is not seeking a “delay,” but rather we are seeking that the spectrum be put to its highest and best use. There is significant support in the record for that perspective, as many commenters have expressed concerns with M2Z’s proposed rules for the AWS-3 band, urging the Commission to adopt technical and service rules that resolve interference concerns that would result from licensing an FDD system immediately adjacent to TDD systems and do not favor “designer allocations” of spectrum tailored to specific business models. See e.g. Letter from Christopher Guttman-McCabe, Vice President, CTIA – The Wireless Association® to Marlene Dortch, Secretary, FCC dated Dec. 22, 2008, WT Dkt. Nos. 07-195 and 04-356 (“There are significant issues regarding service and technical rules for the AWS-3 band that must be resolved if the band is to be used to successfully bring additional mobile wireless broadband services to market. CTIA urges the Commission to resolve these concerns and ensure that the spectrum is used to benefit U.S. wireless consumers most. That means flexible service rules that do not mandate a particular business model and technical rules that adequately protect adjacent licensees from harmful interference.”); see also Comments of CTIA – The Wireless Association®, WT Dkt. Nos. 07-195 and 04-356, at n. 78-88; Letter from Brian Josef, Director, Regulatory Affairs, CTIA – The Wireless Association® to Marlene Dortch, Secretary, FCC dated Oct. 22, 2009 (“During the meeting, CTIA discussed the need for the AWS-3 spectrum to be brought to market expeditiously but also in a carefully considered plan. CTIA shared its views that the 1755-1780 MHz band should be reallocated for licensed CMRS use, paired with the 2155-

Contrary to M2Z's implications, CTIA has always envisioned a collaborative process between the FCC and the NTIA that would accommodate the needs of the current federal users of the 1755-1780 MHz band and would fully conform with the law. Furthermore, M2Z, without any support for its reading, wholly misinterprets the justification for CTIA's proposal and incorrectly condenses the meaning of the word "value" solely to a monetary connotation. First, the initial value of pairing the spectrum is that it will not cause interference to existing licensees. CTIA and its members, many of whom are holders of adjacent band AWS-1 licenses in the 2110-2155 MHz band, have demonstrated the significant potential for harmful interference from unpaired use of the AWS-3 spectrum. Second, the entire wireless ecosystem will see value from the investment and innovation that flows from the allocation of new paired and harmonized spectrum. Third, consumers will see value from the higher speeds that will flow from the CTIA proposal.

As such, use of this band in a more compatible fashion, such as pairing it with the 1755-1780 MHz Federal band, would further the public interest by: (1) allowing for non-harmful adjacent band operations; (2) allow for better international spectrum harmonization; and (3) allow for higher speed broadband wireless services to be delivered to the public. CTIA urges the Commission to reject M2Z's recent assertions and move forward to reallocate the 1755-1780 MHz band from Federal uses to commercial uses and pair this spectrum with the AWS-3 band.

## **I. CTIA'S PROPOSAL CONFORMS WITH THE LAW AND RESPECTS THE NEEDS OF FEDERAL SPECTRUM USERS.**

M2Z correctly identifies a statutory issue with respect to the repurposing of spectrum used by the Department of Defense ("DoD"),<sup>3</sup> however it subsequently errs in assuming that the proposal by CTIA and many others cannot clear this hurdle. It is true that federal law requires that DoD spectrum users be relocated to appropriate frequencies prior to the surrender of any spectrum for commercial uses,<sup>4</sup> and that this process will require some time and effort. However, the need for additional mobile broadband spectrum is pressing. As the Chairman recently stated, "[r]ight now, the United States does not have nearly enough spectrum to meet its medium- and long-term mobile broadband needs. There may be no greater obstacle to our country having a world-leading mobile broadband infrastructure, and the economic benefits that would bring."<sup>5</sup>

2180 MHz spectrum and given flexible service rules that don't mandate a particular business model and technical rules that protect adjacent licensees from harmful interference.").

<sup>3</sup> *Id.* at 2.

<sup>4</sup> *See* The National Defense Authorization Act for Fiscal Year 2000, Pub. L. No. 106-65, 113 Stat. 512, 768.

<sup>5</sup> Julius Genachowski, Chairman, Federal Communications Commission, *Broadband: Our Enduring Engine for Prosperity and Opportunity*, Prepared Remarks Before the NARUC Conference, Washington, D.C. at 5 (Feb. 16, 2010) available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-296262A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296262A1.pdf).

It is against this backdrop that CTIA and others have suggested that the Commission begin the challenging process of coordinating with NTIA to repurpose the spectrum at 1755-1780 MHz for commercial use and to pair it with the unused AWS-3 spectrum for mobile broadband applications. M2Z claims that this process will be complicated by the number and importance of federal users currently operating in this spectrum band.<sup>6</sup> Yet, this proposal has always been made in the context of a joint effort between the FCC and NTIA that would fully address the needs of the incumbent federal users prior to making the commercial spectrum available. The fact that there will be some challenges in executing this proposal does not nullify the substantial benefits to the public interest that stand to be gained.<sup>7</sup>

M2Z misreads the law and demonstrates a lack of understanding of the spectrum repurposing process when it states that “serious consideration by the Commission of the pairing proposal would be untenable as a matter of law, given that there is no indication that NTIA has even begun to identify replacement spectrum that would be acceptable to DoD.”<sup>8</sup> As quoted by M2Z itself, the wording of the law at issue *specifically requires* Commission involvement in the repurposing process.<sup>9</sup> Common sense would counsel that NTIA – which has primary responsibilities of advising the Executive Branch on telecommunications issues and for managing federal government spectrum resources, among other highly important tasks – is not going to begin the process of identifying an appropriate relocation band candidate and clearing federal spectrum for commercial use without the FCC initiating the process. Thus, it is M2Z’s position that is “untenable.” The reality is that to put the AWS-3 spectrum to its most productive use in the public interest, the FCC must begin the process of coordinating with NTIA and the various federal government and private stakeholders to repurpose the 1755-1780 MHz band for commercial use. CTIA believes the Commission should do so, as urged by numerous parties, in its upcoming National Broadband Plan.

## **II. CTIA’S PROPOSAL PUTS SPECTRUM TO ITS HIGHEST AND BEST USE IN THE PUBLIC INTEREST.**

M2Z’s Communications Act argument fundamentally mischaracterizes CTIA’s and others’ proposals as being solely based on the maximization of auction profits. In reality, the pairing proposal is rooted in the Commission’s statutory mandate to manage the nation’s communications resources for the benefit of the public convenience, interest, and necessity.<sup>10</sup> As discussed above, repurposing the 1755-1780 MHz band and pairing it with the unused AWS-3 spectrum at 2155-2180 MHz would serve the public interest in

<sup>6</sup> M2Z Feb. 19 Letter at 3.

<sup>7</sup> See, *infra*, Part II.

<sup>8</sup> M2Z Feb. 19 Letter at 5

<sup>9</sup> 113 Stat. at 768 (providing that DoD shall not surrender use of any spectrum bands “until – (A) the National Telecommunications and Information Administration, in consultation with the Federal Communications Commission, identifies and makes available to the Department for its primary use, if necessary, an alternative band or bands of frequencies as a replacement for the band to be so surrendered”) (emphasis added); see also M2Z Feb. 19 Letter at 3-4.

<sup>10</sup> See, e.g., 47 U.S.C. §§ 303, 309.

several important ways. Among the benefits of this proposal are that it would: (1) make available a significant amount of additional spectrum for mobile broadband use; (2) further the goals of international spectrum harmonization;<sup>11</sup> and (3) avoid the serious interference concerns that are posed by plans to implement a Time Division Duplex (“TDD”) based service adjacent to Frequency Division Duplex (“FDD”) mobile broadband services. To the extent that expected auction returns are relevant to this consideration, it is only insofar as auctions are an efficient mechanism for ensuring that spectrum is put to its highest and best use.

The pressing need for additional mobile broadband spectrum has been one of the key lessons of the Commission’s National Broadband Plan proceeding. Chairman Genachowski confirmed the importance of identifying additional spectrum resources when he stated that “[s]pectrum is the oxygen of our mobile networks,” and that “the biggest threat to the future of mobile in America is the looming spectrum crisis.”<sup>12</sup> CTIA has previously offered evidence that in order to satisfy future demands, the Commission must identify and allocate up to 800 MHz of additional mobile broadband spectrum.<sup>13</sup> The Commission’s efforts to identify additional spectrum must be multi-faceted, and should include an inventory of both government and non-government spectrum use in conjunction with NTIA.<sup>14</sup> Another prong of this effort should be the pairing proposal at issue here.

The 1755-1780 MHz band is particularly well-suited for repurposing because of the consumer benefits to be gained through international harmonization and the experience of U.S. wireless providers in relocating Federal users in adjacent bands. These frequencies are part of a larger band that has been identified by the International Telecommunication Union (“ITU”) for implementation of 3G and beyond mobile communications systems.<sup>15</sup> International harmonization has both economic and social benefits for consumers.<sup>16</sup> International harmonization reduces the costs of mobile devices and increases the speed of bringing these devices to market as it creates economies of scale for manufacturers who are able to design one device for a wider market.<sup>17</sup> Consequently, these reduced costs and increased harmonization lead to more

<sup>11</sup> An uplink from 1755-1780 would be completely within 3GPP Band III (1710-1785 MHz). *See* “The advantages of common frequency bands for mobile handset production – technical note”, GSM Association, at Table 2, *available at* [http://www.gsmworld.com/documents/gsma\\_white\\_tech\\_note.pdf](http://www.gsmworld.com/documents/gsma_white_tech_note.pdf) (last accessed Mar. 3, 2010).

<sup>12</sup> Julius Genachowski, Chairman, Federal Communications Commission, America’s Mobile Broadband Future, Remarks at International CTIA WIRELESS I.T. & Entertainment at 4 (Oct. 7, 2009) *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-293891A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-293891A1.pdf).

<sup>13</sup> *See* CTIA Sept. 29, 2009 Ex Parte at 1.

<sup>14</sup> *Id.* at 1, 16; CTIA NBP PN#6 Comments at 16-20.

<sup>15</sup> *See Provisional Final Acts of WRC 2000*, 8 May-June 2000, Istanbul, Turkey, International Telecommunication Union.

<sup>16</sup> *See 3GPP Technology Approaches for Maximizing Fragmented Spectrum Applications*, 3G Americas at 15-16 (July 2009) *available at* [http://www.3GAmericas.org/documents/3GA%20Underutilized%20Spectrum\\_Final\\_7\\_23\\_092.pdf](http://www.3GAmericas.org/documents/3GA%20Underutilized%20Spectrum_Final_7_23_092.pdf).

<sup>17</sup> *See* Ed Evans, Chairman and CEO, Stelera Wireless, and Neville Ray, Senior Vice President, Engineering, T-Mobile USA, Remarks at the Wireless Deployment Workshop at 96-98 (Aug. 12, 2009) (transcript *available at* [http://www.broadband.gov/docs/ws\\_03\\_deploy\\_wireless\\_transcript.pdf](http://www.broadband.gov/docs/ws_03_deploy_wireless_transcript.pdf)) (discussing

enjoyment of the benefits of mobile broadband by consumers who have increased access to lower-cost, high-quality devices and can enjoy international roaming and reduced cross-border interference.

Furthermore, as CTIA explained in its comments submitted in response to National Broadband Plan Public Notice # 6, the commercial wireless industry has already had substantial experience with similar relocations in the PCS and AWS-1 bands.<sup>18</sup> The lessons learned and relationships forged through those efforts will be essential to a successful repurposing of this federal spectrum band in a way that satisfies the demands of the federal users while simultaneously making available for public use a substantial amount of additional paired mobile broadband spectrum. The 1710-1755 MHz band has been the subject of relocation to make it available for AWS-1 licensees. This experience and expertise will be invaluable in relocating federal spectrum users from the 1755-1780 MHz band.

CTIA's proposal for pairing of AWS-3 spectrum and the 1755-1780 MHz band is also designed to mitigate the interference raised by M2Z's preferred approach. M2Z's proposal is to deploy a TDD-based mobile broadband service in the unpaired AWS-3 spectrum. As CTIA has repeatedly demonstrated, this proposal would cause an unacceptable level of harmful interference to AWS-1 licensees who are entitled to protection.<sup>19</sup> Various laboratory tests and statistical models have demonstrated the extremely high potential that harmful interference will be caused to FDD AWS-1 devices by AWS-3 device transmissions. In fact, test results submitted by T-Mobile indicated that AWS-1 users with an AWS-3 router operating in their homes would have a nearly 67% probability of call-failure.<sup>20</sup> For its part, M2Z has acknowledged that its proposal would cause interference to AWS-1 devices.<sup>21</sup>

Implementing a proposal that is known to cause interference to existing mobile broadband licensees is not an effective way to promote broadband deployment, especially

how spectrum and technology harmonization lowers barriers to entry and other costs both for new commercial entrants and for developing countries).

<sup>18</sup> See Comments of CTIA – The Wireless Association, GN Docket Nos. 09-51, 09-47, 09-137 at 28 (filed Oct. 23, 2009) (“CTIA NBP PN#6 Comments”); Letter from Christopher Guttman-McCabe, CTIA – The Wireless Association, to Chairman Julius Genachowski, Commissioner Michael J. Copps, Commissioner Robert M. McDowell, Commissioner Mignon Clyburn, and Commissioner Meredith Atwell Baker, GN Docket No. 09-51 at 21 (filed Sept. 29, 2009) (“CTIA Sept. 29, 2009 Ex Parte”).

<sup>19</sup> See, e.g., Letter from Christopher Guttman-McCabe, CTIA – The Wireless Association, to Marlene H. Dortch, Federal Communications Commission, WT Docket Nos. 04-356, 07-195 (filed June 18, 2008); Letter from Christopher Guttman-McCabe, CTIA – The Wireless Association, to Marlene H. Dortch, Federal Communications Commission, WT Docket Nos. 04-356, 07-195 (filed Oct. 1, 2008); Letter from Christopher Guttman-McCabe, CTIA – The Wireless Association, to Marlene H. Dortch, Federal Communications Commission, WT Docket Nos. 04-356, 07-195 (filed Oct. 14, 2008) (“CTIA Oct. 14 Ex Parte”).

<sup>20</sup> CTIA Oct. 14 Ex Parte at 2 (citing Optimi Corporation, “Analysis on the Effects of the AWS-3 to AWS-1 Mobile to Mobile Interference” attached to T-Mobile *Ex Parte* Letter, WT Docket Nos. 04-356 & 07-195, (filed Sept. 30, 2008)).

<sup>21</sup> See Reply Comments of M2Z Networks, WT Docket Nos. 07-195, 04-356 at 17 (filed Aug. 11, 2008).



where, as here, there are substantial reasons to doubt the viability of the proposal. As CTIA has previously explained, the history of similar proposals should give the Commission pause regarding auctioning the AWS-3 block encumbered by service rules that are tailor-made to fit one commercial entity's business model.<sup>22</sup> Repeatedly in recent history, the Commission has acted with good intentions in trying to craft auction or service rules to fit the proposal of a single proponent. This approach distorts competition in the marketplace, ultimately harms consumers, and prevents parties who may be better able to deploy a useful service in the frequency band from participating due to the special constraints placed on the spectrum.

CTIA has never urged the Commission to base its "finding of public interest, convenience, and necessity on the expectation of Federal revenues from the use of a system of competitive bidding," as prohibited by Section 309 of the Communications Act.<sup>23</sup> Projected auction revenues are merely a metric for the value of the spectrum and whether it is being put to its highest and best use in the public interest. The point is not how much revenue will be earned for the Federal government, but rather that the amount a bidder pays for the spectrum reflects the value that was placed on that license.

Ultimately, the pairing of the 1755-1780 MHz band with the 2155-2180 MHz band is a far superior option to those being otherwise considered. Although M2Z claims that CTIA's opposition to implementing an unpaired system in the AWS-3 band relies solely on the higher expected returns of a paired spectrum auction, this assertion is completely unsupported.<sup>24</sup> In reality, CTIA's preference for a paired solution is based on the benefits of the proposal as discussed above, the harmful interference that would result from an unpaired solution, and the failed history of similar tailor-made proposals.

<sup>22</sup> See Comments of CTIA – The Wireless Association, WT Docket Nos. 07-195, 04-356 at 4-6 (filed July 25, 2008) (discussing examples of tailor-made auction and service rules that did not result in substantial deployment of the anticipated service).

<sup>23</sup> See 47 U.S.C. § 309(j)(7)(A).

<sup>24</sup> M2Z Feb. 19 Letter at 5.

### **III. CONCLUSION**

As explained above, M2Z's February 19, 2010 letter draws faulty conclusions based on misunderstandings of fact and policy. As CTIA and others have explained, a collaborative effort with NTIA to repurpose the 1755-1780 MHz band and to pair that band with the spectrum at 2155-2180 MHz would best serve the public interest by making 50 MHz of additional paired mobile broadband spectrum available for commercial use without causing potentially debilitating interference to existing licensees in the AWS-1 band. Under this approach all federal spectrum users would be repurposed to appropriate alternative spectrum bands as necessary, and significant benefits would accrue to the public. This proposal is fully consistent with the law and sound regulatory policy, and it should be featured in the Commission's upcoming National Broadband Plan.

Sincerely,

*/s/ David J. Redl*

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Director, Regulatory Affairs

cc: Bruce Gottlieb  
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